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REDUCING ANTIBIOTIC PRESCRIPTIONS FOR UPPER RESPIRATORY INFECTIONS: RESULTS FROM AN OUTPATIENT QUALITY IMPROVEMENT PROJECT

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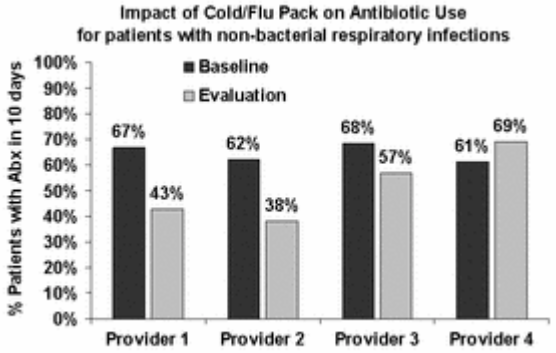
Background Numerous studies demonstrate the lack of utility of antibiotic therapy for common outpatient upper respiratory infections (URIs). Yet overuse of antibiotics for patients with URIs continues, and contributes to rapidly increasing antimicrobial resistance and health care costs. The cost to NC Medicaid of oral antibiotic prescriptions for non-bacterial URIs was $1.5 million during one respiratory season. Patient expectations, physician perception of patient expectations, and time constraints contribute to the overuse of antibiotics.
Objective Our objective was to determine whether the availability of an alternate regimen, a "cold/flu kit", could reduce the use of oral antibiotics.
Setting Primary care clinics serving African-American and Caucasian adult state residents enrolled in Medicaid.
Design The proportion of outpatient visits for URI, common cold, non-streptococcal pharyngitis, and bronchitis that was associated with an antibiotic prescription claim was measured for the pre-intervention baseline (January - March 2001) and the post-intervention (January-March 2002) cold and flu seasons. The study population included adults <65 years of age statewide who were enrolled in Medicaid and did not have a history of underlying lung disease. Practices serving sufficient numbers of the patients were identified and invited to participate in the study.
Interventions Participating practices were provided with free "cold and flu kits" containing symptom relievers such as chicken soup, tea, nasal saline spray, lozenges, and tissues, and literature about antibiotic resistance. Physicians were encouraged to offer the kits as alternatives to antibiotics when antibiotic therapy was not indicated.
Results Four primary care practices participated in the intervention. During this time, statewide prescriptions did not change appreciably; baseline(n=13,102) 58% and evaluation(n=12,879) 57%. The number of adult Medicaid patients with nonbacterial respiratory infections seen in each clinic ranged from 29 to 114 at baseline and from 21 to 130 at evaluation. Three of the four practices distributing cold and flu kits demonstrated substantial reduction in oral antibiotic use (Figure). The 4th practice indicated that the kits were lost during a move.



Figure

Conclusions/Lessons Learned While many organizations have introduced cold care kits, to our knowledge this is the first reported study of its kind, and is highly suggestive that cold care kits may be of use in reducing antibiotic prescriptions. Larger studies are warranted to further assess the efficacy of this intervention and the effects on healthcare costs and on antibiotic resistance.